

Modeling of vehicular traffic system

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Abstract

The behavior of traffic systems controlled by traffic lights on a single lane is presented using the optimal velocity model. The effect of different traffic light control strategies on the traffic flow is discussed using three different strategies, i.e. the synchronized, green wave, and random offset. Some simulation results on the model using cellular automata are presented. The flow-density diagrams are analyzed using these strategies. (© 2008 WILEY-VCH Verlag GmbH & Co. KGaA, Weinheim)